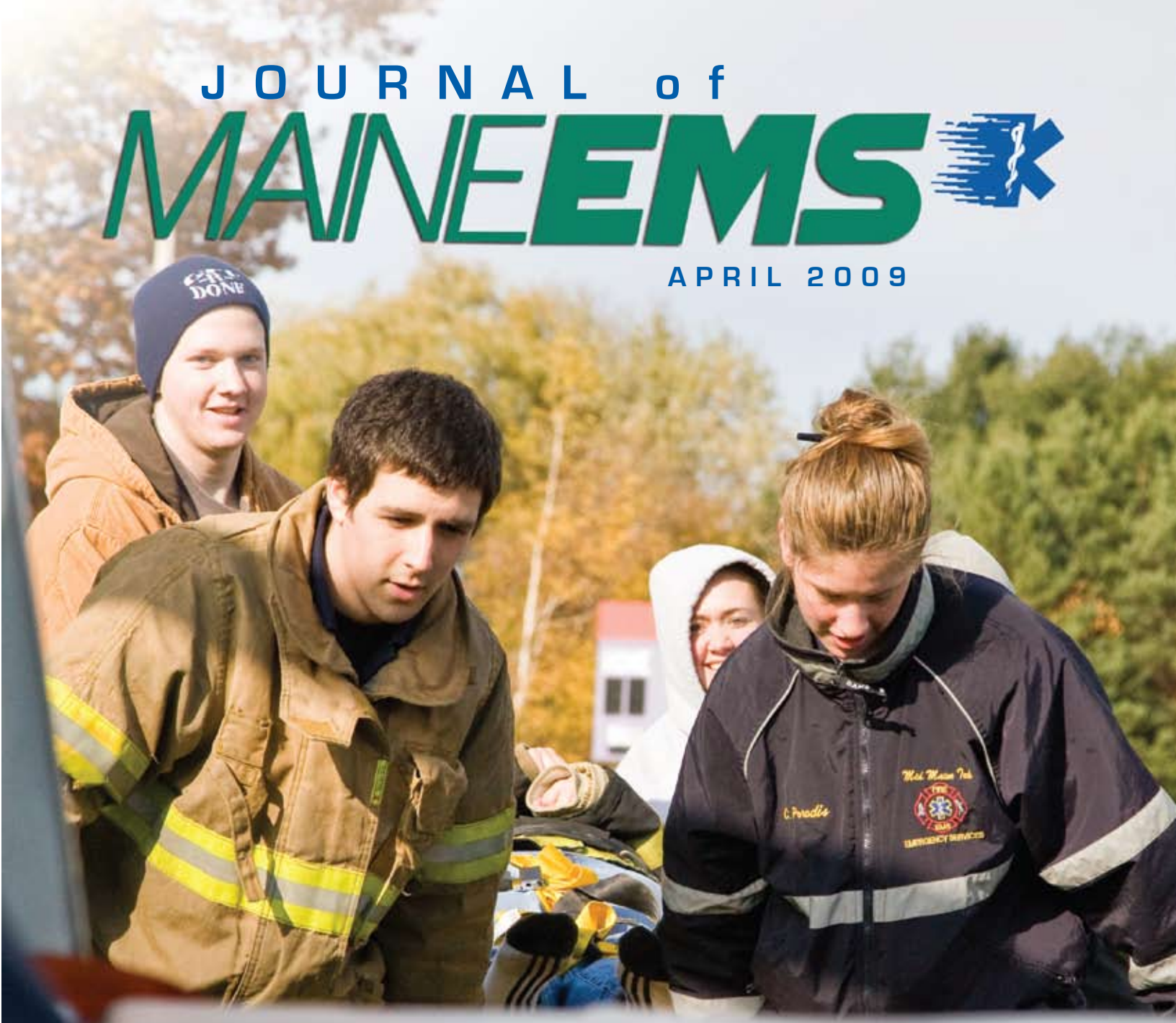
JOURNAL of MAINE EMS

APRIL 2009



INSIDE:

DIRECTIONS

BY JAY BRADSHAW, EMT-P
DIRECTOR MAINE EMS

Reporting System Goes Electronic

April 1, 2009, will be remembered as a special day in Maine EMS. Aside from the obvious references and jokes about the calendar, 4/1/09 is the day when Maine's run report system was 100% electronic.

This has been a long time coming and will constantly require work to improve the completeness and accuracy of our run reports, but for many of us this represents a significant milestone.

In January, Dr. Steve Diaz, Maine EMS Medical Director, and I were invited to speak about our run report project at the National Association of EMS Physician's annual conference. I began my comments by saying that on January 1, 2009, we celebrated the 3rd anniversary of our 18 month project to convert from a paper based system with a 30 year track record to a fully electronic platform. There is significant interest in this project because we are among the few states who have implemented electronic run reporting for all types of services and for all types of EMS calls.

As anticipated, the responses to this change have been varied. It will take time to fully appreciate the many ways that this system can be used by services, hospitals, regional offices – and even at the state and national level. The more we use the data, the more we realize the importance of data quality, which is directly related to the person entering same, and the more we think of other potential benefits and data partners such as public health surveillance and highway safety.

Which is a nice segue to introduce our new Data & Preparedness Coordinator, Jon Powers, NREMT-P. Jon is from the Mid Coast area, works with Union Ambulance and Camden First Aid Association, and prior to joining Maine EMS worked as a dispatcher for Knox RCC. Jon has considerable experience with State Bridge, Field Bridge, and a variety of information technology systems.

Jon is working on a variety of MEMSRR resources and training

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Journal of Maine EMS

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Cover photo by Cathy Case.

continued from previous page

sessions and will be traveling around the state to help raise the understanding and comfort level of those who are the most critical link in our data chain: you!

EMS Week: May 17 – 23, 2009

Each year the American College of Emergency Physicians selects a theme for EMS Week, and this year's theme is "EMS: A Proud Partner In Your Community", which is both an appropriate motto and a good reminder for all of us.

I still cringe when I hear someone refer to EMS providers as "ambulance drivers." To be sure, driving an ambulance is an essential skill, but many of us have spent considerable time and effort to also learn how to provide competent and compassionate care for our patients. How could those of us in EMS know so much about training, protocols, trauma systems, and cardiac care at the same time so many in the public don't even know what to call us?

Stop me if you've heard this before, but it's all about public information, education and relations (PIER). To be a successful EMS service requires understanding that this is a part of providing good patient care. It is through PIER that we get involved with injury prevention projects such as playground safety, Child Passenger Safety, CPR/AED, etc.

ACEP has a wonderful promotion packet that can be downloaded from their web site (you can find a link on the Maine EMS web site). This packet provides information that can be used as part of a year 'round program to promote EMS and be a proud community partner.

One of the annual events during EMS week is the awards presentation by the Board of EMS. This year we will be honoring the following:

- Governor's Award: Maine Health Information Center and key staff who have been responsible for our paper run report data system.
- Lifetime Achievement Awards: Chief Les Brown, East Millinocket Fire/Ambulance and Judith Wills, NorthStar EMS, Carrabassett Valley.
- Merit Awards: Tiffany Stebbins, Oakland and Gary Gardner, Eagle Lake.
- HeartSafe Community Awards: Bangor Fire Department; South Portland Fire Department; Redington-Fairview General Hospital EMS (Athens, Brighton, Canaan, Cornville, Mercer, Norridgewock, Skowhegan, Smithfield, Solon); United Ambulance Service (Addition of Bridgton, Denmark, Sweden); and Orono Fire Department.

The awards ceremony will take place in the State House Hall of Flags on Tuesday, May 19 at 2:30 PM and all are invited. There will be more on this in the next issue – and we would like to hear about your EMS Week activities, too.

See you in a few months.

Maine First Responders Help to Save Lives in Iraq

Josh Scroggins, Executive Director
ESGR-Maine Committee, Department of Defense

While the streets of Bangor may be a far cry different than the desert of Iraq, the life saving skills that Mark Urgwhart used while he was stationed there and now back in Maine, are very similar. In his civilian life, Urgwhart works for Capital Ambulance in Bangor. As a member of the Maine Army National Guard, he is a soldier with the 126 Charlie Company out of Bangor.

The 126th is a medevac unit which operated Blackhawk helicopter missions and organized medevac sites in Iraq. This unit, which returned home on January 1st, airlifted over 670 patients and completed over 3000 hours of flying during their nine months in Iraq. Major Brian Veneziano, Commander, C/1-126 credited a lot of their units success to the training the members received both from the military as well as from their civilian employers. As members of the National Guard, these soldiers bring with them a mix of civilian and military experiences. "The unit members which were civilian police officers, fire fighters, and EMTs brought with them level headedness and quick thinking under very stressful situations that was beneficial to everyone." On each mission there was a crew of five soldiers comprised of two pilots, two crew chiefs, and a medic. The medics are instrumental in stabilizing injuries so injured service members can be airlifted out of harms way. In addition crew chiefs are given basic life saving skills in order to assist whenever possible. "Losing someone is extremely emotional and painful for everyone, but to see my Soldiers remain calm and do their job, shows the caliber of medics we have. Their ability to handle life and death situations and manage the personal trauma that comes with that was invaluable" said Veneziano.

Nationally the guard and reserve represents almost 50% of the total military force. In Maine, there are over 5,200 service members

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Colors, Weights, And Pediatric Resuscitation Aids: A Follow-Up

Scott A. Smith, RN, NREMT-P, I/C

A number of EMS providers contacted the editor regarding my article in the last issue of The Journal of Maine EMS. While many people provided excellent feedback about the article, there was also a great deal of confusion about Question 4 in the post-test. Hopefully, this brief explanation will help.

Question 4 asked the reader to use a resuscitation aid to find the correct size oral airway for a patient in the yellow weight band. The confusion may have come from how different aids describe the sizes of oral airways and other equipment, including prior versions of the Broselow Tape™. As shown in Figure 1, the most recent version of the tape does in fact identify the 60 mm size as the correct one for a child in the Yellow color band.

The focus of the article was to prompt providers into re-acquainting themselves with a seldom-used piece of equipment. Check what your service has carefully. You may see items described in other ways, such as Neonate/Infant (40 mm), Small Child (50 mm), and Child (60 mm) oral airways. For ALS providers, do you have the most current version of the device and is it consistent with MEMS and national guidelines (i.e. AHA Guidelines 2005)? Even if the aid your service has is not the latest version, the basic information is probably still accurate and helpful in an extremely stressful pediatric call.

In conclusion, if you were challenged by the exercise, I encourage you to develop a training session for yourself and your service and do the simplest thing possible- practice, practice, practice! The call you need it one may be just around the corner.

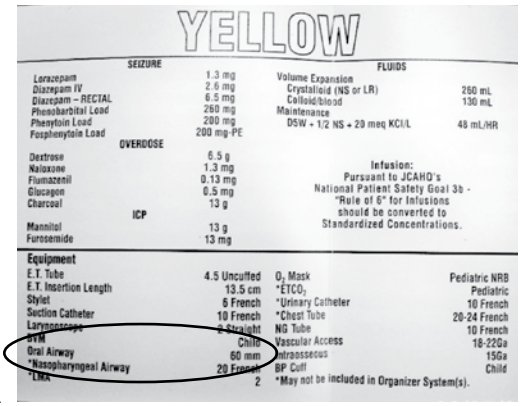

Figure 1. This photo shows the Yellow Section of the 2007 Edition B of the Broselow Tape™, © 2007, VitalSigns, Inc. Used with permission of Dr. James Broselow.

Photo by the author.

Help to Save Lives in Iraq

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that serve to protect the nation's freedom and provide assistance during natural disasters. At anytime, there can be hundreds of Maine Guard and Reservists that are deployed overseas, and hundreds more on active duty orders providing services to our nation's defense.

Providing these services requires sacrifices. Sacrifices must be made by the service member, their family, and often times the unsung heroes…..their employers. Employers share their employees with the Guard and Reserve in a symbiotic relationship that at times can be challenging due to deployments. Josh Scroggins, Executive Director for the Employer Support of the Guard and Reserve said "When a service member is deployed this can put a strain their company. Small or large the company must find a way to provide coverage for that deployed service members work responsibilities." This strain can be even greater if the deployed employee has a specialized position, or the company has a smaller work force. Scroggins added that his office understands these sacrifices, and whenever possible will do what they can to lessen the burden on impacted companies.

Supportive employers are critical to maintaining the strength and readiness of the nation's National Guard and Reserve units. The mission of ESGR is to gain and maintain employer support for Guard and Reserve service by recognizing outstanding support, increasing awareness of the law, and resolving conflicts through mediation. ESGR volunteers provide free education, consultation, and if necessary, free mediation for employers of Guard and Reserve employees.

ESGR, an agency of the Department of Defense, encourages all Maine employers to sign a Statement of Support for the National Guard and Reserve. By signing a Statement of Support, your company will join more than 600 other Maine businesses and a cadre of Fortune 500 companies, state and federal agencies and thousands of America's employers in demonstrating support for our armed forces.

The Statement of Support confirms that you join other employers across the state and nation in pledging that:

* We fully recognize, honor and enforce the Uniformed Services Employment and Re-Employment Rights Act (USERRA)
* Our managers and supervisors will have the tools they need to effectively manage those employees who serve in the Guard and Reserve
* We will continually recognize and support our country's service members and their families in peace, in crises and in war

For more information, to sign a Statement of Support, or to volunteer, please contact Josh Scroggins, Maine Executive Director, at 207-626-4282 or at Joshua.scroggins@us.army.mil.

To sign a Statement of Support online, go online to www.esgr.com.

Local EMS crews in Fort Kent and the surrounding area were busy last spring when the St. John and Fish Rivers overflowed and created major flooding in parts of Fort Kent. The St. John River peaked at a record high of more than 30 feet. *Photos by Jeremy Damren, Maine Emergency Management Agency.*

The EMD Corner

Drexell White, EMT-P
Maine EMS EMD Coordinator

Over the last several months, the Emergency Medical Dispatch (EMD) community in Maine has been busy with its transition to a single statewide EMD protocol. In 2007, the Maine EMS Board, which regulates the practice and licensing of Maine's Emergency Medical Dispatchers and Emergency Medical Dispatcher Centers, directed that a single statewide EMD protocol be implemented (in place of three different protocols that have been in use in Maine for many years). In 2008, the Emergency Services Communications (ESCB) Bureau in conjunction with Maine EMS, distributed a Request for Proposal (RFP) to establish a single statewide EMD protocol in Maine and to provide training, continuing education and quality assurance components for the system. In January 2009, a contract was signed with the successful bidder, Priority Dispatch Inc. of Salt Lake City Utah. Priority Dispatch Inc (PDI) along with its standards and certification partner – the National Academies of Emergency Dispatch (NAED) has trained tens of thousands of Emergency Medical Dispatchers, and its protocol, the Medical Priority Dispatch System (MPDS) is in use in over three thousand dispatch centers worldwide.

At the time of the contract signing, 52% of Maine's licensed EMD Centers used the MPDS to provide EMD to 9-1-1 callers. With a little more than half of the state's EMD centers using the MPDS, a large part of moving to a single statewide EMD protocol has been to provide MPDS transition training for two hundred fifty of the State's five hundred sixty licensed EMD providers. Since January of this year, ESCB Training and Operations Manager, Steve Bunker has been busy scheduling the three-day transition programs throughout the State. All of the transition programs have been instructed by Fred Hurtado, an experienced and prolific MPDS instructor, who, throughout the years, has delivered the majority of the Priority Dispatch Advanced EMD training programs in Maine. Fred brings a welcomed depth of knowledge, consistency and enthusiasm to the transition training programs.

As of this writing, over one hundred dispatchers have been trained in the MPDS since the beginning of 2009, with four more classes on tap for March and April. The response of Maine's Emergency Medical Dispatchers and EMD Centers to the training and transition to the MPDS protocol has been one of cooperation and support, as evidenced by student turnout at the transition programs and by the Centers' willingness to embrace the significant change in how EMD is delivered. New protocol card sets have been delivered to the EMD Centers transitioning to the MPDS and work is in progress to bring Pro QA, the software version of the MPDS protocols to the Centers

The response of Maine's Emergency Medical Dispatchers and EMD Centers to the training and transition to the MPDS protocol has been one of cooperation and support, as evidenced by student turnout at the transition programs.

Plans are also underway to train EMD Center Quality Assurance Managers using the PDI quality assurance training course. The course provides "basic training" in quality assurance and teaches Center QA managers on how to use the PDI QA system and tools as part of a quality review system. Training will also be available for AQUA, PDI's integrated Quality Assurance software.

Along with training, protocols and quality assurance, EMD Centers will also have the opportunity to use the PDI Advancement Series, a compact disk-based continuing education program designed to meet the lion's share of continuing education requirements. Participating EMD Centers will receive four CD's per year worth eight hours of continuing education. The CDs are interactive and each disk focuses on one or more of the protocols found in the MPDS.

There's a lot going on in Maine's EMD community and a lot more to come. With implementation of a single statewide EMD protocol, Maine EMS will once again lead the nation (as it did with its statewide EMS protocol). And, with implementation of the MPDS and the establishment of uniform high quality emergency medical dispatch in Maine, the next step will be a true priority dispatch process for Maine EMS services. More on priority dispatch will be presented in future editions of The EMD Corner.

Children and Disasters: Are You Ready?

Phases of disaster response for children

Disasters, whether man made or natural are a rare occurrence, but are you and your service prepared to deal with the affect on the children you serve? Children are different from adults both physiologically and anatomically, but also differ psychologically. Preplanning for dealing with children in a disaster can be crucial, as chaos is common in the uncommon circumstance of a disaster.

Regardless of the type of disaster, the phases of the disaster response are the same. Per PEPP (Pediatric Education for the Prehospital Professionals), Phase 1 is the activation phase, which includes notification, initial response, organization of the command structure, and scene assessment. Phase 2 is the implementation phase which includes, search and rescue, victim triage, initial stabilization and transport, and definitive scene management of scene hazards and victims. The third and final phase, the recovery phase involves scene withdrawal, return to normal operations, and debriefing.[1] How does this differ with children? It shouldn't, but the impulse with hurt children may be to rush in to help. The scene must be safe to enter as injured rescuers are of no help to anyone. The pediatric population may also present their own set of challenges during triage. They are frightened, may be nonverbal, and may have become separated from family members. This can complicate the assessment process. START and JumpSTART, a triage program developed by the Newport Beach, CA fire and Marine Dept and Hoag Hospital is one method developed for disaster triage. START may be used for children over 8 and JumpSTART is designed to be used on children under 8. Training at triaging children may be helpful at lessening anxiety and being better prepared in the case of a disaster.

Disasters may separate family members and younger children may have a hard time understanding this. "Being separated from their parents and uncertain about the events will make the management of their emotional needs difficult. EMS systems must anticipate these emotional crises and have a plan in place to establish communications and restore unity of families as quick as possible."[1] Preplanning for this can be of paramount importance at the time of the disaster. It will be helpful to know where your resources are ahead of time, as opposed to scrambling to look for them at disaster time.

Also, "appropriate mental health personnel with pediatric expertise should participate in the aftermath of disasters to help ensure adequate sheltering and secure places to begin stress debriefing and counseling services." Once again, having this in order prior to the disaster may lessen the psychological effects suffered by children in a disaster.

Per PEPP, attempts should be made at keeping families together if at all possible during the decontamination and treatment process. "Special care is indicated for children because they are at an increased risk for hypothermia when exposed to the environment during decontamination. Make sure there are pediatric sized clothes available to dress the children after decontamination is complete."[1] Do you have adequate resources to keep them warm, such as clothes and blankets? Preplanning may help with availability of these types of items.

These are just a few things that may be needed for pediatric patients in a disaster. In a press release from the Childrens Hospital Los Angeles in EMSRESPONDER.com posted January 22, 2009, it was reported that despite its history of disasters, the Los Angeles healthcare community is no more prepared to respond to a disaster today than it was 10 years ago. Fewer than 25 percent of providers have disaster plans that address the particular needs of children.[2] Childrens Hospital Los Angeles has developed an online training curriculum for health care workers to help them deal effectively with children in the event of the disaster. This may be accessed at www.chladisastercenter.org.[2]

Isn't now the time to prepare for dealing with your youngest and possible most vulnerable population in the event of a disaster?

Credits:

1. Pediatric Education for Prehospital Professionals copyright 2006 by American Academy of Pediatrics
2. http://www.emsresponder.com/features/article.jsp?siteSelection+5&id+8857

CEH Corner

Once you have finished reading and understanding this issue's article on Children and Disaster, complete the questions below and forward your answers by mail or electronically to MEMS Journal Kelly Roderick 141 Fairfield Street Oakland ME 04963 kr8264@gmail.com. Your name and license number will be submitted to Maine EMS for credit and will appear directly on your MEMS CEH Report. Your completed questions must be received no later than May 30, 2009 to receive your 0.5 hour in Cat 2 BLS Topics 0.5 hour in Cat 4 ALS Topics

NAME _____

EMS or EMD License Number _____

1. Name a type of triage that may be used for children under 8.

_____

_____

2. List the 3 phases of the disaster response.

_____

_____

3. List 2 things that may make management of children's emotional needs more difficult during a disaster.

_____

_____

4. What may children be at an increased risk for during decontamination?

_____

_____

5. Should mental health personnel with pediatric expertise be involved in the aftermath of disasters?

_____

_____

New ATLS Guidelines Begin in the Field

Michael A. Gibbs, MD, FACEP
Professor and Chief
Department of Emergency Medicine
Maine Medical Center
President, Maine ACEP

Robert J. Winchell, MD, FACS
Chief of Trauma Services
Department of Surgery
Maine Medical Center

In late 2008 the American College of Surgeons released the 8th revision of the Advanced Trauma Life Support guidelines. A number of important recommendations were added or modified across the spectrum of trauma management. Many of the interventions central to ATLS teaching begin in the field. Furthermore, it is crucial for all EMS providers to understand the principles that drive evidence-based changes in trauma care.

This piece will provide a concise summary of the updated portions of the new ATLS guidelines, focusing on those relevant to pre-hospital care. A more complete summary of additions and modifications can be found in the *Journal of Trauma*.[1]

Airway Management

Airway Assessment: The ability to predict the difficult airway is an essential skill, and there are several "tools" out there help us do this. ATLS now endorses the "LEMON Law" mnemonic that describes a five-step process used to anticipate trouble:

"Look"

Does the patient have immediately visible anatomic features predictive of difficult direct laryngoscopy [e.g.: facial injury, big teeth, a large tongue, a beard]?

"Examine"

This describes three quick measurements ["3-3-2"]: three finger breadths of mouth opening (between the front teeth), three finger breadths from the tip of the mandible to the hyoid bone, and 2 finger breadths from the floor of the mouth (undersurface of the chin) to top of the Adam's Apple. Patients with measurement less than these typically have airways that are difficult to visualize by direct laryngoscopy.

"Mallampatti"

The Mallampatti Score, which can be difficult to obtain in the field, measures how much of the uvula and posterior pharynx can be seen with maximal mouth opening. Essentially, the more the airway is obscured by the base of the tongue, the harder the intubation will be.

"Obstruction"

Are there any conditions that can cause airway obstructions [e.g.: blood, vomit, foreign body…]?

"Neck Mobility"

Does the patient have limited neck mobility? This will obviously be the case for 100% of blunt trauma patients with the cervical spine immobilized.

When put to the test in 156 ED patients undergoing airway management, the "LEMON Law" was highly predictive of the difficult airway. The features most often associated with difficulty were: [1] big teeth, [2] limited mouth opening, and [3] a short neck.2

Airway Devices: The current iteration of ATLS spends more time discussing airway rescue devices, and makes specific recommendations to have a backup approach such an LMA™, a laryngeal tube [e.g.: Combitube™], or gum elastic bougie at the ready.

Shock Management

Best Fluid: Warmed isotonic fluids [normal saline or lactated ringers] are considered the standard. The current guidelines do not recommend one over the other, nor do they recommend the use of hypertonic saline.

Resuscitation Strategy: The critical importance of maintaining brain perfusion in patients with traumatic brain injury was emphasized. In plain English, our most important job in the emergency management of TBI is to maintain adequate blood flow and oxygenation to the injured brain.

Hypovolemic resuscitation in the setting of penetrating torso trauma was discussed in more detail. This approach is based upon the knowledge that bleeding from penetrating wounds increases as blood pressure is raised above 90 mmHg. In the unstable patient with penetrating chest and abdominal trauma our primary goal should always be to get the patient to a center where prompt surgical control of hemorrhage can be achieved. In circumstances where there may be uncontrolled intra-thoracic or intra-abdominal bleeding, resuscitation to a lower blood pressure [<90 mmHg] can limit blood loss prior to definitive control. This strategy may be applicable to certain blunt trauma patients who have uncontrolled hemorrhage as well, but should generally be avoided or used very carefully in patient with suspected TBI.

ED Thoracotomy

ED thoracotomy is a dramatic procedure that can be potentially lifesaving in the right patient and either harmful or of no value in the wrong patient. ED thoracotomy is most likely to be successful in patients with penetrating chest trauma who lose their pulse and blood pressure while in the ED or who arrive at the hospital without a pulse or blood pressure, but with "signs of life" [i.e.: electrical activity; PEA]. Conversely, ED thoracotomy is not recommended in patients suffering

blunt trauma, even those with witnessed arrest, as outcomes have been universally dismal.

Pelvic Injuries

The importance of temporary pelvic stabilization using compressive devices, either specific to pelvic fracture management or improvised using a bed sheet, to decrease bleeding was emphasized. These simple maneuvers decrease pelvic bleeding and reduce mortality. Acknowledging that the presence or absence of a pelvic fracture may be difficult to determine in the field, early pelvic stabilization can be life-saving and should be utilized liberally.

Compartment Syndrome

There was additional discussion about the clinical challenge of diagnosing compartment syndrome. "Absence of a palpable distal pulse is an uncommon finding and should not be relied upon to diagnose compartment syndrome."1 The most reliable signs of compartment syndrome are excessive pain, firmness to palpation, and pain on passive movement, while loss of nerve function or distal pulses are both seen only in very advance cases, if at all. The diagnosis can be very challenging in patients with altered mental status.

Trauma In Women

Potential misconceptions regarding the use of restraint systems in pregnancy were addressed in more detail. "Compared with restrained pregnant women involved in collisions, unrestrained pregnant women have a higher risk of premature labor and fetal death. There does not appear to be any increase in pregnancy-specific risks from deployment of airbags in contemporary motor vehicles."[1]

Pediatric Trauma

The importance of abdominal wall bruising as a marker of significant intra-abdominal injury was emphasized.

Other Issues Related To In-Hospital Care

1. The importance of qualitative end-tidal CO2 to verify endotracheal tube placement was emphasized. Quantative methods are even better if available.
2. The early use of endovascular techniques was emphasized. This can involve embolization (the introduction of a coil into a bleeding artery under radiological guidance) or placement of a stent to repair vascular injuries. These procedures, typically performed at larger Trauma Centers, can be used to control bleeding from a number of abdominal organs, major vessels, the extremities, and the pelvis
3. Serial measurements of either the serum lactate or base deficit were recommended to monitor adequacy of perfusion and guide fluid resuscitation.
4. More emphasis was placed on the surgical management of pericardial tamponade and effective early chest tube placement for management of pneumothoraces.
5. Endovascular repair of aortic injuries was identified as a reasonable alternative to traditional open repair.
6. Specific recommendations were made for CT scanning in minor head injury [i.e.: the Canadian Head CT Rule].
7. CT scanning was identified as the best method of detecting spinal injuries and carotid artery injuries.
8. The use of steroids in spinal cord injuries was not recommended.

Trauma management continues to advance at a rapid pace. Dissemination of these principles into the EMS arena will increase provider knowledge, streamline care, and improve patient outcomes.

References

[1] Kortbeck JB. Journal of Trauma 2008; 64:1638.

[2] Reed JM. Emergency Medicine Journal 2005; 22:102-107.

From the I/C News editor…

Greetings all!

I know we I/C's all teach EMS students and providers, but I'm sure we all also spend a good bit of time teaching our patients as well. We aren't just teachers in the classroom, but we are teachers in all the many places we practice our craft. I expect that most of us explain what we're doing when we start an IV, do an EKG, or secure a patient to a backboard. We explain our emergency procedures when appropriate. But how much do we teach our patients about their conditions, about complications, about what things they might do to keep themselves from needing an ambulance in the first place?

I am stunned almost every single day to find out how little my patients know about their various medical conditions. I don't know whether it's because their doctors don't tell them, because they aren't interested or don't ask, or because maybe they don't even realize how much more than just taking their medicines that they can do to stay healthy in spite of their chronic illnesses.

You might consider starting a "teachable moment" with your (non-critical) patient by asking, "what has your doctor told you about [your disease]?" Once you've assessed the patient's knowledge, you might be able to help educate this person in whatever time you have with him or her. Now, just as you have to prepare if you are going to be teaching a class, you need to be prepared with some information about the disease you're going to talk about. In our EMS education we are taught a lot about what to do in emergency situations, but not what the patient should be doing for daily maintenance of his condition. You might have to spend a little time yourself researching the day-to-day at-home care of some of the more common chronic illnesses we see: heart disease, heart failure, asthma, COPD, and diabetes. The American Heart Association (americanheart.org) has, in its pages, information for patients as well as for providers on a multitude of heart conditions. The American Diabetes Association web site (diabetes.org) has enough information to keep you entertained for months. And the American Lung Association (lungusa.org) has information on common and not-so-common respiratory ailments.

Consider taking your teaching beyond the classroom!

Teaching Tips

On-line Practice Exams

Jay Sanborn, EMT-I, I/C; Sacopee Rescue

Here is a site to practice computer-based testing for National Registry exams: www.id44.com. There is a $1 fee per test, but it seems to be very realistic and several of my students have used it.

EMT Teaching: a Common Sense Approach

Dan Bahr, EMT-P; Business Administrator, County Ambulance

There is a book out called EMT-Teaching: A Common Sense Approach, by Richard A. Cherry. It's in paperback form and looks to be full of practical tips, and not just educational theory.

National Registry Newsletter

Each spring the National Registry publishes its annual newsletter, which gets mailed to all registered providers. Others can view the newsletter online on the National Registry web site. As of the Journal of Maine EMS' publication deadline this winter, the spring issue of the Registry newsletter was not yet available on their web site. To check for the newsletter yourself, go to www.nremt.org and click on the newsletter link. (You can also view the past several years' worth of newsletters at the same site.)

Committee Briefs

Exam Committee

By Jacky Vaniotis, RN, NREMT-P, Chair, MEMS Exam Committee

The Exam Committee continues working on updating the Exam Administrator's Manual. Once the revision is completed, we will submit it to the Board for approval, and then upload it to the MEMS web site.

The committee also continues analyzing the results of EMT-Intermediate cognitive exams. Based on our findings, we will make any needed changes.

Please feel free to attend any meeting of the Exam Committee, which meets on the fourth Tuesday of each month at 9:30 a.m. As always, we recommend that you contact the MEMS office to make sure a meeting has not been canceled or rescheduled.

Teaching Tips from the Classroom

Diane Delano, EMT-P, FF; Poland Fire Rescue

These are pictures taken during the EMT-Basic class held in the Tri-County region at Poland Fire Rescue. There were 14 students in the class that started in September and ended just prior to Christmas in December. This is actually the first class in which I have been the I/C, and I found it very rewarding. I had many challenges that were good for both the students and me as the instructor. I look forward to learning from past challenges and building on my skills as an instructor.

Erin Stone, FF/Paramedic; Scarborough Fire Department

During our chapter on elderly patients in the EMT-Basic class held at Scarborough Fire Department last spring, we used a simulation kit. The kit contains different pairs of glasses to simulate different types of vision problems, as well as gloves that simulate dexterity problems. The students had to wear the glasses and attempt to read a newspaper, pick out a specific color pill from a bottle of multi-colored pills, and attempt to pick that pill up, as well as other activities. As you can see from the photos, the students really enjoyed this class and got a lot out of it.









Mike's Training Moments

By Michael James Azevedo, Jr. EMT B; Chief, Carmel Fire & Rescue

When One Life Ends: Death and EMS

I offer greetings to my friends in Emergency Medical Services. I would like to dedicate this article to my mother, Marie E. Azevedo. She passed away on January 3, 2009 at Penobscot Bay Medical Center at the age of 61. I received a call from the doctor at PBMC on Friday January 2, explaining that Mom was not doing well, and the doctor was looking for direction on further medical care. My brother and I, along with my uncle and father, discussed the situation, and, after meeting with the doctor, made a decision to let nature take its course, and not to perform extraordinary measures. I received a call on January 3 at 0400 from her nurse telling me that her vital signs were not stable. I drove to the hospital where my brother and father met me in the ICU. I held her hand for three hours and she died at 0710.

In the last month, I have thought more about death than at any other time in my life. My mother had been battling life's circumstances for better than five years, and death was the end result. I knew this, knew that it was a possibility, but never anticipated that it would be this quick. It has caused me to reflect on my life, the situations that I have been in, and the decisions I have made. The first of many correct decisions was when I decided to become an EMT, a decision supported and funded by my mother back in the spring of 1990. I have always wanted to help other people, and this was something that she supported.

I have been totally amazed at the number of people who have been supportive of my family during this time. My own crew members who took time to attend the funeral, sent food for the reception, and the many cards I have received. I thank them for their support and help. It is with the support of my wife and children that I return to the fire station, to continue doing what I have done for years, and that is to help others.

And it is thanks to Mom for the topic for this month's training column on death and dying. As EMT's, we spend most of our training trying to help and to save lives. In the basic EMT class, we mention death as a possibility, but we are so busy learning life-saving skills, that we never learn how to handle death, much less prepare for it. I would like to share some of the things that I have learned over the years, topped off with what I have learned in the last month.

First, and foremost, death is okay. Death is expected and we will all die someday. Not to be morbid, but sometimes when the accident happens, death will already have occurred by the time the EMS crews arrive. There is nothing we could have done, even if we had been there as it happened. So what are some of the things that should be covered in a class about death?

What do you say to the family?

Sometimes it is best to say nothing at all. This is the time to be most respectful of the family and the patient. Say that you are sorry for their loss, and ask if there is anything you can do to help. (Please make sure that you have confirmed that there is no further chance for resuscitation.) When possible, place your ambulance in service, and stay for a while with the family. At least stay until law enforcement arrives. People do understand that you may have to leave.

Hospice care

Hospice care is a program which supports people who have made a decision to die at home. Many people choose to die in the comfort of their own home. Hospice care will help take care of all the arrangements, and this includes taking care of the person after death. The ambulance is generally not needed, but can be called when someone in the family does not understand how hospice works.

Squad chiefs could contact a local hospice agency and have someone come to a meeting and talk with service members. It really helps to know something about it before you are talking with a family involved in a death.

Funeral home involvement

I would never have thought about visiting a funeral home. However my experience has shown me that they can be a wealth of information. In my mom's case, they took care of all the funeral arrangements, took care of the obituary (after my father wrote it), and they have provided information on grieving. They have been very helpful and understanding during this entire event.

Clergy involvement

I remember some time ago sitting at a scene, watching another EMT talking with a grandfather who had just found Grandmother dead in her room. The man asked the EMT how to handle the grief. The response from the EMT was this: "pray." I know that this is how I handle many situations. Death makes people think about God and Church. Many churches have pastors, grief teams and other members who are very willing to help during these trying times. If you have a church in your town, the church membership may provide you additional assistance with dealing with death. Ask your local clergy to consider speaking at a training session.

Most police and fire departments have a chaplain, either on staff or on call. Many families do not go to church today, but the police and fire chaplains can help during these times. All you have to do is ask.

Police involvement

I learned the hard way what an "attended death" meant. "Attended" does not mean that someone watched the person die. An attended death is where a doctor is aware of the patient's condition, and will sign a death certificate. An "unattended death" does not have a physician who is aware of the situation. Any time there is a death, it is considered a crime scene until proven otherwise. As EMS providers, it is necessary to understand that we can help a crime investigation by doing only our job, and not destroying evidence. Ask for a member of your local police department, sheriff's office, or Maine State Police to speak to your service about crime scene preservation.

Grief sharing

It is important that EMT's understand grief. People react in different ways under pressure, and this includes when someone dies. People will do things that you would never expect. They say things that are not meant and these comments may be directed at the rescuers. Remember your personal safety, but you can help just by listening to the people. I remember going into a house in Carmel after a grandfather had passed away. My partner had grown up in town and the grandmother recognized him. While my partner was outside, the grandmother started telling me about how my partner had grown up and spent time with her kids. I listened for about 20 minutes as she re-lived old times. I was amazed at how she was reacting, but as we waited for police and the funeral home, I felt like I was part of the family.

CISD

Crisis Intervention can be a very important service for ambulance crew members. Knowing how to contact the CISD team can help a service deal with not only serious calls and deaths, but also issues that will affect members' lives for a long time to come. I have been involved in one myself, and know of several services that have used the team. Contact can be made through the local EMS office. A member of the CISD team may be able to come to a meeting and explain how the process works. It is better to know ahead of time how the process will go, and, if possible, this will make it more comfortable for you.

DNR

This is an opportunity to review the Maine EMS Do Not Resuscitate Program. More information can be obtained through your local EMS office. The orange form and bracelet make it easy to find out what the patient's wishes are. You may also honor a note from a doctor, as long as it is signed in the last six months. If you cannot locate a DNR order in a quick fashion, you need to take necessary measures to save the patient's life. Explain to the family what and why you are doing things. You may contact Medical Control if you need help dealing with the family.

Cardiopulmonary resuscitation

Code drills are always a good way to practice very important skills. It is important that EMT's are comfortable with CPR skills, the location and use of their equipment, and be able to do this under trying conditions. An upset family, a patient in a snow bank or in the dark is where these activities may take place. I remember one morning doing CPR in a small bedroom in the dark. I remember very vividly hearing the ambulance pull into the driveway and three of my crew members walking through the door with equipment. The gentleman died, but I know we did everything we could.

I have always tried to find the good in every situation. My mother always did. I will find it a challenge with her gone. Every Friday I would call and talk with her. I even tried calling her the Friday after she died. I was calling to see if she was coming to the funeral. She never did answer the phone, but she was there. I hope that through her death and the ideas I have listed above, you will be able to train your ambulance crews to handle death a little easier.

Until next time, thank you for the people you train and the lives that are saved as a result.



Gems from Jan

Jan Brinkman, RN, EMT-P; Maine EMS Education & Training Coordinator

Updates

- The Training Center Approval Process was approved by the Maine EMS Board in February. This means that agencies or departments that are ready to apply for approval as a Training Center may do so starting this fall. Any courses leading to licensure after the deadline date of January 1, 2010 must be offered by an approved Training Center.
- The AVOC program is currently being reviewed and updated. The intent will be to upgrade AVOC Instructors and then have AVOC courses for providers being offered starting sometime in the summer.
- Instructor/Coordinators – We would like to update the I/C file for contact information so that we may provide you with information on courses that we become aware of that offer Category 7 CEH's. We do not have current e-mail addresses for many of you. If you would like to be included in our e-mail distribution list, please contact me at jan.brinkman@maine.gov with this information.

Thoughts

I have had the privilege of working with the members of the Education Committee for one year now, and I would like to share a few thoughts about the experience with you all. First, I am impressed at the level of commitment by everyone to advancing the quality of educational programs being offered to EMS providers across the state. The hard work and countless hours spent on some of the projects we have had on our plate this past year indicates that providers at all levels are truly dedicated to constantly improving our EMS system.

Secondly, I would like to thank all of you who, even if you're not an active member of the Education Committee, have given your time to attend meetings and/or send me e-mails with your thoughts and suggestions on different projects. One thing I have learned over the years is that sometimes when you are working on a project, especially if you've been working on it for a long time, you actually can't see it as objectively as you did in the beginning. This is when a fresh set of eyes and ears is not only welcome, but also a necessity, to review the project and offer new insights. Please know that I mean this sincerely: we welcome all comments! I encourage you to become involved with your local, regional, and/or state education committees. Field providers, supervisors, I/C's, service chiefs – everyone tends to look at the same thing from a slightly different vantage point and that is a good thing! The more angles we view and research a project from the better the overall outcome.

As a reminder to all, the minutes from the Education Committee meetings are available on the Maine EMS website at www.maine.gov/dps/ems. Click on "Boards and Committees" and then click on "Education Committee" to view these.

The Education Committee meets at 9:30 a.m. on the second Wednesday of each month. All are welcome! Please call the Maine EMS office to confirm the date and time of a meeting before coming. If you cannot attend a meeting, but would like to comment on any of our projects, please feel free to contact Dan Batsie, Education Committee Chair (dbatsie@emcc.edu), or me (jan.brinkman@maine.gov)

Incident Response

Communications Interoperability Plan Funding

Sean Goodwin; Augusta Fire Department and Maine ENA

Here is some information on funding to help EMS services meet the State of Maine Communications Interoperability Plan (SCIP). This SCIP funding can help EMS services in our state purchase interoperable emergency communications equipment for the service. The communication interoperability grant will most likely come out in late winter or the spring. As long as the radio equipment is what is called P-25, there could be funding.

Federal Grants require that your EMS service be fully trained in NIMS. Your county EMA office can help with the training and nearly 80% of the training is on-line.

You can learn more about the SCIP Project and grant funding at the MEMA web site, www.state.me.us/mema. For those EMS services in Kennebec County, feel free to call me at 623-8407, all others should call their own county EMA offices. Remember, hope is not a plan.

Please submit any materials you would like to have published in the next issue of the I/C News by May 15, 2009 for publication in the June/July 2009 edition of the Journal of Maine EMS. Submit material to: Jacky Vaniotis, 172 Haskell Road, North Yarmouth, ME 04097, or email JackyV@Vaniotis.com

Controlling the Chaos

Guess what?…the ED is full! So went the chant on the first afternoon that we christened the new space for the Emergency Services at Maine Medical Center. This really was not much of a surprise as the move opened 35 beds but closed 26 beds in the contiguous, about-to-be-renovated old ED. Our tracking board had commonly counted as many patients in the waiting room as there were in the chock full old clinical space. We just hadn't expected this activity level quite so soon.

We started to adapt to patient volumes of 55 to 70 at a time by doing exams at triage and in the corridor next to the waiting room. We developed "hall" space by utilizing the areas between the cubicles and the nursing stations. We used the critical care rooms to decompress the "hallways" although even these 6 rooms (double our old number) were often occupied with truly critical cases.

By the end of May we anticipate the remodeling of the old ED area to be finished and an additional 27 beds to go online. At that point of course we will still be full and looking forward to more creative engineering for the summer onslaught. The planning of 5 years previous could not have predicted the continued steady rise in volume and even more of the severity of people requiring emergency care.

You can deal with this patient onslaught by just putting your face into the wind, hunkering down a bit, raising your collar and pushing ahead one step at a time hoping for at least a bathroom break in a few hours. You can then go home and collapse in your favorite chair and try to regain the energy for you next shift. You can try to recall how this job used to be more fun with time to teach and to share the priceless stories. You can also do what us old …uh … more senior ED docs do …surround ourselves with young, energetic ED docs who love a challenge. Enter Samir Haydar DO, MPH.

Samir Haydar finished his ED training and fellowship at Yale and joined our staff in the summer of '07. He has from the beginning shown his excellence in teaching, clinical skills and taking on problems that required a face into the wind approach. Many of you have already benefited from his conference on sepsis last year. With sepsis management still requiring careful shepherding he has decided to also dive into the world of Microsystems. These Microsystems don't have anything to do with computers except in the way a computer solves problems, i.e. by a large number of tiny steps one leading logically to the next.

The Microsystems approach to health care delivery was developed at Dartmouth and spearheaded by Dr. Eugene Nelson. In 2002 he and others published their work through JCAHO (Nelson EC, Batalden PB, Huber TP, Mohr, JJ, Godfrey MM, Headrick, LA, Wasson, JH: *Microsystems in Health Care: Part 1. Learning from High-Performing Front-line Clinical Units.* The Joint Commission Journal on Quality Improvement. Volume 28 (9): 472-493, 2002 ….found at http://dms.dartmouth.edu/cms/materials/publications/)

The essentials are a small group of people involved in the delivery of health care within a supportive larger organization. The focus is on the patient and providing that patient with efficient, high quality and compassionate care. While articles written on Microsystems will not eventually become screenplays for this summer's blockbuster movie, the practical application of getting everyone together who has an immediate stake in the delivery of emergency care to solve specific problems is rewarding.

The first goal will be to reduce the "patient in bed to doctor done" time from its current 160 minutes by 15% or 24 minutes over the next 2 months. In parsing this process into its component steps at least 30 different actions take place, each one the domain of several ED staff members. This creates opportunities all along the timeline to improve efficiency. At the same time that individual steps are shortened it will be important to encourage thinking outside the box, as some steps may not even be required.

At this point Samir has gathered support from nurses, docs, lab, X-ray, environmental services and other ancillary staff. All are involved and I am hopeful we are headed in a direction that will improve patient care and our own job satisfaction. I must say that studying those facets contributing to the stress in the ED is distracting at least and will, at best, control the chaos.

Improving Stroke Care: An EMS Perspective

May 30, 2009 | 9am to 4pm
Maine Medical Center Dana Auditorium

Cost is $30 with discounts for multiple attendees from same EMS service. CEU, CEH, and CME credits available.

FMI: Richard Veilleux, Program Manager
207-541-7557 or **veillr@mainehealth.org**

Air Wars

Much of the material below is based on two documents I helped write. They may be found at the National Association of State EMS Officials (NASEMSO) website http://www.nasemso.org/Projects/AirMedical/):

Air Medical Services: future development as an integrated component of the Emergency Medical Services (EMS) System; Prehosp Emerg Care. 2007 Oct-Dec;11(4):353-68.

Position Statement of NASEMSO on the Need for Shared State and Federal Regulation of Air Medical Services (2009).

So, you respond to a motor vehicle crash as ALS back-up to another ambulance service. Hearing by radio the status of the one patient involved from the first responder on the scene, you request helicopter response.

Arriving at the scene, the BLS crew chief gives you a rundown on the patient and says she's called for a helicopter. Beginning your assessment and care, you look over as the distinctive roar of a chopper landing across the street momentarily overwhelms your patient focus. Turning to the BLS provider, you ask "Did you call Acme Medevec?" "No", she replies, "I called RotorWhiz". "Well, I called the state police bird. So what are these guys doing here?" She replies "Must have been scanner surfing again". Soon, two more helicopters are hovering around the scene.

Can't happen? Well, it is not the way life should be and so hopefully won't in the Maine EMS system. But that's not to say that it couldn't be our future if events around the country are indicators.

Last June, two medevac helicopters crashed into each other while landing at a hospital in Arizona, killing all seven aboard. They were not in radio communication and were unaware of the other's presence. In September, two medical helicopters in the Sacramento, California area, also not communicating with one another, came close enough together to set off one aircraft's "near collision" warning.[1]

Okay, so that's California. What about real, er I mean rural, states like Maine? Oklahoma has gone from three bases and four aircraft in 2000 to 25 bases and 34 aircraft today. Pennsylvania has 62 medical helicopters flying around. Sixty-two.

Nationally, the number of medical helicopters has jumped from 293 aircraft in 1995 to 839 aircraft in 2008. As Figure 1 indicates, much of that growth has occurred in the last eight years. From 2002 to 2008 the number of medical helicopters has doubled, at a rate of 50 new helicopters a year. At the same time, the number of programs operating helicopters has leveled off and even dropped somewhat. What's with that?

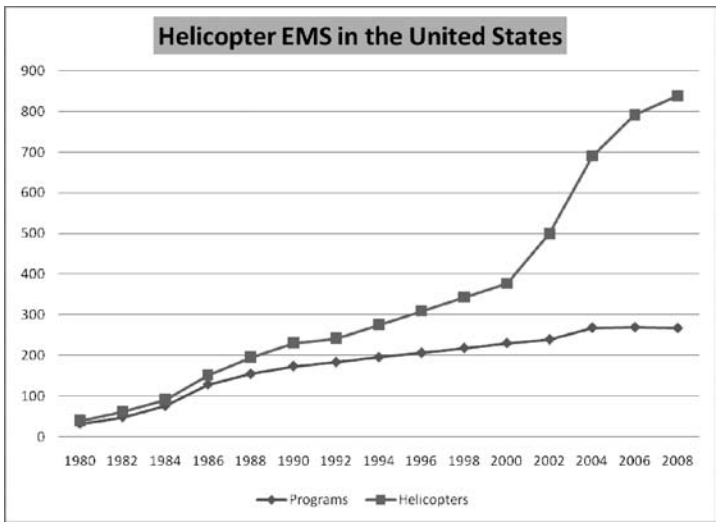
This growth has not been without cost. In the period 2002 to 2005, 55 airmedical service (AMS) crashes occurred (41 helicopters and 14 airplanes) killing 54 people, and seriously injuring 19 others. Following a promising lull in such activity, there have been nine crashes and 35 deaths in the past year or so. The National Transportation Safety Board (NTSB) scheduled hearings on the issue for February, 2009 largely as a result of these crashes. The National Association of State EMS Officials and the Non-Profit Airmedical Alliance have called for stronger state regulation of AMS, not necessarily because of the crashes (which is an FAA air safety matter) but because of the impact on EMS systems.

What's the deal? Let's start at the beginning.

The first non-military airmedical services started with the state police in Maryland and at St. Anthony's Hospital in Denver in 1970 and 1972, respectively. Ensuing AMS start ups were primarily similar hospital-based or public safety sponsored services.

Most services utilized helicopters to bring ALS out to patients and rapidly transport them to specialty care centers. Over the years, an evidence base built for the effectiveness of helicopter EMS (HEMS) in trauma care. Similar arguments are now being made for other time-dependent conditions such as stroke and STEMI. Fixed wing aircraft have been similarly employed in frontier areas for emergency transport with specialty teams, as well as for non-emergency transport.

Figure 1



The operational model of hospital-based, non-profit HEMS or public safety sponsored HEMS predominated from the early 1970's through the end of the century. In recent years, larger for-profit companies have started or consolidated AMS programs around the country. The growth in the number of aircraft, but decline in the number of programs, is probably a reflection of this trend.

Maine has seen a little bit of the whole variety of AMS at one time or another. Through the early 1990's, the Maine Forestry Service and Maine Army National Guard Medevac were (and still are in some circumstances) utilized for emergency medical transport primarily in remote rescues. The Coast Guard is similarly employed in coastal rescues. When Maine became one of the last states without dedicated AMS, Maine EMS tried to organize existing state, federal and other services into a coordinated network. This was abandoned when Maine EMS needed to assume its regulatory role in licensing a new air medical service and avoid conflict of interests. At about the same time, there was a new effort to initiate a hospital-based service, which eventually became the LifeFlight of Maine (LOM) program, sponsored by Eastern Maine Medical Center and Central Maine Medical Center. It now has helicopters based in Lewiston and Bangor.

A for-profit HEMS was started in the early 1990's and operated from the Portland Jetport. Called AirMed Skycare, the service closed after a 1993 crash in Casco Bay killed the patient and medical crew. Finally, fixed wing services have long informally operated to serve the coastal islands and may occasionally carry patients when needed. More formal, licensed fixed wing services are found in Aroostook County, operated by Crown Ambulance and the Caribou Fire Department.

Okay, so what's with the huge growth in aircraft numbers and how could that impact Maine? One factor appears to be financial. When LifeFlight of Maine began in the late 1990's, it was tough to make a buck from AMS. Reimbursement was not favorable and hospitals or government public safety programs had to have deep pockets. Hospitals justified the expenditure through their community service commitment and through the more financially lucrative cases brought to them (in Maine, it was said, this latter factor didn't compute well because these cases ended up at the major centers anyway).

In 2000, following a prolonged "negotiated rule-making" process between Medicare and the EMS community, reimbursement rates changed. The rates for AMS became favorable, recognizing the overhead costs of hospitals and governments operating the services, among other aspects. A service like LifeFlight of Maine, operating more expensive, dual engine aircraft, could now think about breaking even. At the same time, operators without governmental or hospital overhead and operating less expensive aircraft could see the opportunity for profit.

Take another look at Figure 1. When did the growth in aircraft begin? Hmmmm. I won't suggest that no other factors were at play in this, but will add that the predominant model of AMS has recently shifted away from the non-profit or public safety version to a for-profit program. Single, independent programs are being consolidated into national operations. So, more aircraft, more patients flown, and more reimbursement. Reliable sources in Maine and across the country offers by at least one outfit to give a hospital or fire department a helicopter for free, or even to pay them a sizable fee to sponsor it, in exchange for the operator running and billing for the service. Tell me there's no money in this business.

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Are growth and the crash problem related? Maybe, and the NTSB is certainly looking at all factors in that problem. They, and the FAA, are the air safety experts after all. But my concern is the problem created by rapidly injecting hundreds of new aircraft into EMS systems across the nation. Are all of these new aircraft well integrated in the overall EMS systems in which they operate? Is sufficient medical direction and quality improvement oversight accompanying these expansions?

In the 1970's, when state EMS systems and offices were being started, many encountered a problem called "call jumping". Private ambulance services would market their services to the public and to police and fire agencies so that they would be called directly when a car crash or other medical event occurred. Some services would monitor scanners and "self-dispatch" when a response opportunity became apparent. Multiple services on a scene fighting over patients occurred. Because of effective EMS system planning, improved centralized dispatch and definition of primary service areas, call-jumping is largely unknown today.

A similar issue exists in some states with AMS. Marketing of services to public safety responders has resulted in numerous anecdotes of multiple helicopters responding to a car crash. When these aircraft cannot talk with one another a coordination as well as safety concern is raised. These events seem to be evidence of poor coordination of access to, dispatch of, appropriate resource utilization of, and medical quality assurance of air medical services.

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Air Wars

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So where are the protocols and procedures that would control such confusion? If EMS systems and state offices fixed ground ambulance call-jumping, why can't they do the same with these concerning signs and symptoms of disarray?

When state EMS systems have attempted to use their normal licensing, system planning and service integration processes for AMS, in many cases they have been sued. And often successfully. States have been challenged on their ability to make an AMS operator show a need for a new service or aircraft, to require them to fly patients to the closest appropriate hospital or specialty center, to operate during certain hours, and to have air conditioning. Those suing cite the Airline Deregulation Act of 1978, which allows only the FAA to regulate "rates, routes, and services". They believe that open competition should otherwise control matters such as these.

Not all air medical services operators are of this mind. The issue has split the Association of Air Medical Services (AAMS) into two factions who have agreed to fight it out beyond the walls of AAMS (AAMS had partnered with NASMESO and the National Association of EMS Physicians on the 2007 Prehospital Emergency Care article "Air Medical Services: future development as an integrated component of the Emergency Medical Services System" cited at the beginning of this column. This might not have happened today). One faction, the Air Medical Operators Association favors the open competition approach and is fighting any further EMS system regulation. The other side, the Non Profit Airmedical Alliance, sides with state EMS systems in seeking more organized planning, integration and coordination.

State EMS offices and EMS system medical directors feel that the FAA has no expertise to regulate the medical aspects of AMS and that federal law should be changed to allow states to serve in that capacity as they do for the rest of EMS and health care. They feel that free market control will be no more effective in EMS (call-jumping having been one sign of its failure) than it is the rest of health care (look at health care costs in a free market system).

Who will win? Stay tuned. In the mean time, know that Maine entities have not been immune to offers to establish new helicopter programs here, but to date no such offers have borne fruit. And while the existing AMS providers in Maine have been pretty effectively integrated into our EMS system, such may not always be the case if the forces behind growth in the numbers of aircraft work their way into New England.

References

1-Sacramento Bee; January 8, 2009; 1A. Accessed January 30, 2009 at: http://www.sacbee.com/ourregion/story/1525141.html

Photo by Cathy Case

Meghan Lindstrom, MD
CHIEF RESIDENT, MAINE MEDICAL CENTER

Maine Medical Center Resident Medical Direction Program

July 2008 marked the start of a new relationship between Emergency Medicine Residents at Maine Medical Center and Maine EMS. Developed in hopes of fostering an enhanced experience in prehospital care as well as more active medical direction, the Maine Medical Center Resident Medical Direction Program currently exists as a 12 month pilot program. Each of six services (Scarborough, South Portland, Westbrook, Falmouth, Standish, and Gorham) hosts four residents with whom they have worked with throughout the academic year. The potential to establish a foundation with the familiar faces of a designated service over a period of 1-3 years is afforded by inclusion of residents at varied levels of training (interns, PGY-2s, and PGY-3s) on each team.

Program goals from the outset included regular meetings to identify ongoing service needs and interests with consideration of resident interests, skill sets, and availability. In addition, residents are to provide ongoing training sessions, quality improvement (QI), and follow up. Lastly, residents are expected to maintain involvement through attendance at scheduled local, state, and regional meetings.

Though it has taken these first months for many teams to get things off the ground, the program is certainly gaining momentum and appears to be headed in a good direction. Overall, the experience has been well received by the individual services and the resident groups. "The Scarborough Fire Department has been fortunate to have been able to participate in the MMC resident Medical Advisor program this past year. We have found great value in the educational programs the residents have conducted as well as their ability to provide us timely feedback on the final diagnoses and hospital courses or treatment of patients we treated and transported to MMC," stated Deputy Chief of EMS Tony Attardo. "We look forward to this program being an integral component of our EMS system in years to come." Several residents have echoed these sentiments, also citing the lecture series as one of the most educational and beneficial experiences offered by the program. Services including Cumberland have voiced their interest in becoming involved in the future and have recruited resident participation in education this year as well.

While we have taken great strides since the start of the pilot, there is plenty of room for improvement. Based on feedback from multiple providers involved in the program, a common theme highlighted by the experience is the importance of good communication. Those who have remained in closer, more frequent contact have enjoyed greater success and productivity to date. Unfortunately, the local, state, and regional meetings have not had the resident physician presence initially intended. However, in hopes of boosting attendance, a new EMS bulletin board located in the resident lounge at MMC features the schedule of upcoming meetings as well as a place to sign-up for carpooling. Additional challenges faced by both residents and EMS Deputy directors are ever busy schedules and duty hours which limit availability. That said, both parties continue to be flexible and work with one another to achieve their individual goals.

Although EMS is a standard component of Emergency Medicine Residency training and curricula, experiences have historically varied greatly and not all residents have gleaned an adequate EMS experience in the past. The MMC Resident Medical Direction Pilot Program serves to provide a more standardized exposure to EMS and invaluable experience in the role of Medical Director. As my classmates and I near graduation this June, I'm increasingly impressed by the potential of our EMS program and its value to our medical education. I hope each year, residents feel the same way.

Pictured above: the Scarborough Resident Medical Direction Team. From left to right: Dr. Meghan Lindstrom, PGY-3; Dr. Tom Cochran, PGY-2; Dr. Justin Bennett, PGY-1; Dr. Ali Cochran, PGY-2; Dr. Kate Good, December graduate and new attending at SMMC.

The January issue of The Resident's Corner, ***Musings: Running with Scissors***, was mistakenly attributed to Tripp Carter, MD. The article was actually written by John Saucier, MD.

Report of Final Actions

Taken by the Maine EMS Investigations Committee

This notice is written in accordance with direction of the Maine EMS Board that the names, violations, and final disciplinary actions involving licensees who were subject to a fine, suspension, reprimand, requested voluntary surrender, and or revocation of their EMS licenses and or I/C certification be published in the Maine EMS Journal as a public notice.

The information listed in this section reflects the final action(s) taken by the Maine EMS Board. This information does not include pending actions or cases under appeal. This information does not contain, nor does it reflect, all of the factors involved in determining the final action, such as the severity of the misconduct/violation, the licensee's criminal and disciplinary history, or other mitigating factors. This publication is not intended as a guide to the level of disciplinary actions for a particular violation or misconduct, but rather as a publication that will increase awareness, reduce repetitive investigations, identify potential problem areas, and assist in determining areas for improvements in the quality and delivery of EMS statewide.

2008

Name: Daniel Oleson (EMS # 21828)
Violation: Criminal conviction for Violation of Protection Order; Maine EMS Rules Chapter 11 §(1)(5).
Action: Mr. Oleson entered into a Consent Agreement for 7 years for a conditional license to include the following conditions: 1) Licensee will report any criminal charges against Licensee in any state or Federal Court within 10 days of charges being docketed; 2) Licensee will report if a permanent Protection From Abuse order is issued; 3) If charges are filed against Licensee in any state or Federal court, or a permanent Protection From Abuse order is issued, Licensee will immediately surrender any license issued by Maine EMS pending resolution of any EMS investigation into the conduct unless Licensee can show good cause why the license should continue pending the investigation.
Date: November 5, 2008

Name: Michael Sullivan (EMS # 13562)
Violation: Patient care issues; Maine EMS Rules Chapter 11 §(1)(14).
Action: Mr. Sullivan entered into a Consent Agreement which includes the following conditions: 1) A reprimand; 2) Prohibits him from administering narcotics to any patient unless he has first obtained specific permission from OLMC for two years; 3) Must have 100% QA review of all run reports with narcotic administration and 4) Will instruct three agency wide CEH programs regarding pain management and administration.
Date: November 5, 2008

2009

Name: Brunswick Fire (EMS # 110)
Violation: Service allowed an unlicensed provider to respond on its behalf, Maine EMS Rules Chapter 11 § (1)(34) and 32 M.R.S.A. §82(1).
Action: Brunswick Fire entered into a Consent Agreement which imposed the following: 1) A reprimand; 2) The service shall follow the policy in place to prevent unlicensed providers from responding on the service's behalf; 3) The service shall pay a fine of $200.00 per violation for a total of $6,000.00. All but $600.00 of the fine amount shall be suspended based on the mitigating factors and 4) The service shall submit to Maine EMS an affidavit which states that the service has reviewed its billing records for those thirty calls, make any necessary corrections to reflect the unlicensed provider's billing status and certifies that these calls were billed in accordance with state and federal laws.
Date: January 7, 2009

Name: Timothy Lambert (EMS # 17606)
Violation: Licensee failed to report a prior criminal conviction on his September 12, 2005 renewal application, Maine EMS Rules Chapter 11§ (1)(1), and Chapter 11 § (1)(2),
Action: Mr. Lambert entered into a Consent Agreement which imposed a reprimand.
Date January 7, 2009

Name: Chebeague Island (EMS # 156)
Violation: Service license expired and that the Service continued to respond and provide emergency medical treatment, Maine EMS Rules Chapter 11 § (1)(3) and 32 M.R.S.A. §82 (1).
Action: Chebeague Island entered into a Consent Agreement which imposed a reprimand.
Date: January 7, 2009

Remembering Each Sacrifice
Honoring Each Contribution

More than $20,000 have already been raised for the Maine EMS Memorial planned to be constructed next to the fire and law enforcement memorials next to the capitol on State Street in Augusta, but more donations are needed to meet the $300,000 goal.

For more information on how to donate, visit www.kvems.org.

Maine Emergency Nurses Association

Tammy Lachance, RN, BSN, CEN
Central Maine Medical Center

Manager's Breakfast

On January 31st, Maine ENA held a "Manager's Breakfast" in Augusta at the Senator Inn. Over 20 ED nurse leaders from across the state gathered for a few hours of networking and education. Steven Johnson, Esq. provided education on issues affecting today's emergency departments. Questions were submitted prior to the meeting with common themes of restraints, seclusion and mandatory reporting.

The meeting received such positive feedback that Atty. Johnson was asked to return to answer more questions about electronic documentation. He will be presenting at the Spring MENA Meeting and Education Day on April 6th at Miles Memorial Hospital in Damariscotta. Other topics include sepsis, bariatric surgery, therapeutic hypothermia and interactive knowledge games. It looks to be a great conference!

ENA-Sponsored Courses

Course dates for all ENA-sponsored courses are listed on the national ENA web site at www.ena.org -- for the United States and the rest of the world. Make a trip out of it!

Emergency Nurses Pediatric Course "ENPC"

Courses are being offered at several locations in Maine. The traditional two-day provider course and the new one-day Re-Verification course are both available. Check the Maine ENA web site at www.enamaine.org or contact Carmen Hetherington, RN, BSN, CEN, Pediatric Committee Chairperson, at 795-2874 or hetheric@cmhc.org for information.

Trauma Nursing Core Course "TNCC"

Courses are being offered at several locations in Maine. For dates and locations, go to the Maine ENA web site at www.enamaine.org or contact Geneva Sides, RN, BSN, Trauma Committee Chairperson, at sidesboss@hotmail.com.

"EN CARE"

EN CARE, the injury prevention institute of the Emergency Nurses Association, launched a new educational program in March 2009. Strategic Thinking on Prevention of Injuries: A Prevention Leadership Program, also known as the "STOP Injuries" program, is for all levels of healthcare providers, from new grads to experienced injury prevention professionals. STOP Injuries is an interactive self-study program that provides injury prevention education to be applied in both patient and community settings. For more information, go to www.ena.org or contact Sarah Scott, RN at sascott19@aol.com.

Have a SAFE spring and please wear a helmet when riding a motorcycle or bicycle!

Hands-On Training Opportunity

The RV-based Human Patient Simulator (HPS) lab is available to provide one-of-a-kind onsite training to regional EMS services. The HPS, purchased with funds from the 2003 state transportation bond and owned by Maine EMS, is a mobile training lab designed to provide advanced emergency medical education to providers at all levels of care. The program offers 90-minute sessions of team-based training to hospital and EMS providers. There is an array of pre-programmed patient scenarios that can be used. However, if services have a specific training need, customized scenarios can be developed.

For more details or to request a visit from the HPS, contact The LifeFlight Foundation at 207-785-2288 or visit www.lifeflightmaine.org.

We're not in Maine Anymore, Toto

Brian Lynch, EMT-B
Colby College Emergency Response Team

The South African EMS system is in the unique position of dealing with both third world health issues, like tuberculosis and AIDS, as well as rising levels of first world health issues, like cancer and alcoholism.

Think of working 80 hours and responding to three mass casualty minibus taxi accidents (one of which involved another ambulance crew and one that involved a fatality), five car accidents, three victims of assault (including an attempted car jacking), three patients with gunshot wounds (one of whom suffered a fatal head wound), a fatal stabbing, one victim of unknown trauma, and two pedestrians struck by vehicles (one of whom was a child) plus medical calls including a code.

Given my previous experience in EMS here in Maine I would have thought that would be extremely out of the ordinary. But then I had the opportunity to study in Durban, South Africa at the School for International Training and, as part of my independent study project, ride with South African EMS providers. Some of the crews worked for a private EMS provider (Netcare 911) while others worked on the training unit of Durban University of Technology's Department of Emergency Care and Rescue, TechMed 1, part of the public EMS system. The providers I rode with told me this was not out of the ordinary and a few even apologized for my "bad luck" in that I didn't get that many "good" calls.

A Netcare 911 Paramedic Response Car from the St. Augustine Base. It is normally worked alone by the one paramedic on the shift who also serves as the shift manager.

Admittedly, not everything in Durban was that different from Maine. The personnel I got to know do the job for many of the same reasons that I think we do, like the chance to help others or the excitement. They are frustrated by some of the same things (such as abuse of ambulance services), look to help fellow EMS workers (including the author), and have friends in the police and fire services.

As the introduction noted, some of the biggest differences were the types of calls and the call volume compared to resources. The South African EMS system is in the unique position of dealing with both "Third World" health issues (high levels of tuberculosis and childhood diseases, the HIV/AIDS epidemic[1]), and rising levels of "First World" health issues (cardiovascular and respiratory diseases, cancer, alcoholism). Not to be ignored is the fact that in South Africa, there is an epidemic of trauma and "mortality from trauma and injury in urban areas is among the highest in the world"[2] with contributing factors being high levels of violent crime and a heavy reliance on unsafe minibus taxis.[3]

In the province I visited, KwaZulu-Natal, "the trauma rate per head of population at times [has] exceeded that of Bosnia at the height of the civil war."[4] The public EMS that serves the majority of the population is understaffed, overburdened, and its workers underpaid.[5] Due to a shortage of advanced level providers and vehicles, private services arose to provide quicker, more experienced and advanced care[6] "though access is limited by cost."[7] The private and public services have been described as "a dichotomy of the extremely good and the dreadfully poor."

In this environment, EMS providers often suffer as well. Despite the large amount of trauma providers see, only one service (Netcare 911) has counseling available to their employees. They are also at risk for contracting HIV. Thirty-seven percent of patients requiring trauma resuscitation at the University of Witwatersrand Trauma Unit in Johannesburg were HIV positive.

However, the providers I talked to were more concerned about dying violently in the line of duty as result of poor traffic safety and violence. Like here, there is danger in responding with lights and sirens as other drivers may not yield the right of way, move erratically, or be intoxicated. In South Africa, however, I saw more aggressive driving than I see in Maine, such as minibus taxi drivers tailgating emergency vehicles to cut through dense traffic (this was the cause of the ambulance crash mentioned earlier).

Probably the most disturbing thing I learned was that our South African counterparts have a much greater chance of being attacked violently at work. Large crowds often gather at scenes with little or no police to control them (police escorts are not always readily available for EMS). This can become dangerous if the crowd is intoxicated, does not understand the concept of triage, or is hostile to the patient. One provider told me that he once had a knife held to his neck and was told that if he treated the patient he would be killed too. Multiple providers told me of getting shot at and one had actually been wounded on two different occasions. Providers also told me of the disturbing trend of ambulance hijackings, par-

From left to right: Members of a training group; the rescuers in the red flight suits are from VEMA (a volunteer group), multicolored flight suits are from Netcare 911, blue suits are from the South African Police Service (SAPS) Search and Rescue (SAR) unit and I am in the green shirt. *Photo to courtesy of Peter Upfold.* **A Netcare ATV which can be towed by the "Kwagga" and is used to access patients in areas inaccessible to conventional vehicles. Netcare 911's Incident Management Unit or "Kwagga" carries specialized rescue equipment and is staffed by an ILS rescue specialist.**

ticularly those with female providers, who the hijackers believe to be easier targets. In some instances, the hijackers have raped the female providers.

Another difference was the utilization and training of paramedics. Unlike Maine, there were very few paramedics compared call volume, and the paramedics usually staffed response cars by themselves (unless they had students). They only responded to high priority calls and often turned patients they felt did not warrant ALS over to BLS and ILS ambulance crews.

Their training also differed from that provided here. The standard for paramedic education is the National Diploma, which involves three years of full time education that trains the student in the practice of ALS and Advanced Medical Rescue (including topics such as extrication, fire-rescue, rope rescue, confined space rescue, survival, and navigation). Providers told me the reasoning behind this rescue training was that although these activities are primarily the responsibility of the fire service and special police units, in South Africa those resources are not always available so EMS providers are forced to "improvise" and "multi-task." In fact, shortly before I began my research, Netcare 911 created the Incident Management Unit with a special truck, equipment and an ILS rescue specialist to help address these issues.

Left: A member of the SAPS SAR unit rappels (or in South Africa "abseils") down a waterfall to the "victim" at the bottom of Kloof Gorge. Right: A Netcare 911 ILS rescue specialist makes his way to "victim" at the bottom of Kloof Gorge. *Photo courtesy Peter Upfold.*

National Diploma holders also now have the opportunity for an additional year of education which results in a degree known as a B.Tech, as well as the ability to perform RSI and administer thrombolytic drugs (this is the degree held by most of the paramedic instructors). A master's degree program has been created and a doctorate program is under development.[8]

Unfortunately, many of the factors I have mentioned above (and others for which there was no room in this article) have resulted in a "Brain Drain" from South African EMS as many providers are leaving for other industries in South Africa or for EMS opportunities overseas. Due to their high level of training and experience, South African paramedics are in high demand and are going to places such as the United Kingdom, Dubai, and Australia, and providing contract work on oil rigs at sea, and with private military companies in Iraq and Afghanistan. This poses a major problem since there are not enough EMS resources in South Africa to begin with.

Footnotes

[1] Charles A Perrott, "Emergency Medicine in South Africa: a Personal Perspective," Journal of Emergency Medicine 25 (2003): 325-328.

[2] Melissa E. Clarke, "Emergency Medicine in the New South Africa," Annals of Emergency Medicine 32 (1998): 367-372.

[3] Perrot, 325-328.

[4] Janyne Simon-Meyer, "Emergency Services in KwaZulu-Natal," HST Update 34 (1998): 9.

[5] Perrott, 325-328.

[6] J Goosen, D M. Bowley, E Degiannis, and F Plani, "Trauma Care Systems in South Africa," Injury 34 (2003): 704-708.

[7] Petra Brysiewicz and Judy Bruce, "Emergency Nursing in South Africa," International Emergency Nursing 16 (2008): 128.

[8] Another interesting facet of South African EMS is that instead of working under a physician's license, all providers are independently licensed health professionals, which means among other things they do not need to call medical control for orders.

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MAINE EMS TEAM LEADERS

Ever wondered who to call when you have a question, complaint, concern or compliment about your EMS system? Listed below are the members of the Maine EMS Board, Maine EMS Staff, and the Regional Coordinators and Medical Directors. Each and every EMS team member in Maine is encouraged to get involved with how your system is run. So get involved—give us a call!

Maine EMS Board Members

Southern Maine EMS Rep	Ron Jones, EMT-P	23 Sterling Drive, Westbrook, ME 04092	TEL: 854-0654
Kennebec Valley EMS Rep	Tim Beals, EMT-P	PO Box 747, Waterville, ME 04903	TEL: 872-4000
Aroostook EMS Rep	Percy Thibeau, EMT-P	229 US Rt. 1, Frenchville, ME 04745	TEL: 543-6697
Tri-County EMS Rep	Lori Metayer, RN, EMT-P	3 Woodland Avenue, Lisbon Falls, ME 04252	TEL: 353-4546
Northeastern EMS Rep	Paul Knowlton, EMT-P	274 Pearl Street, Bangor, ME 04401	TEL: 941-5100
Mid-Coast EMS Rep	Steven E. Leach, EMT-P	PO Box 894, Union, ME 04862	TEL: 785-2260
Physician Rep	Peter DiPietrantonio, DO	4 Picnic Hill Road, Freeport, ME 04032	TEL: 373-2220
Nurse Rep	Geneva Sides, RN	PO Box 287, St. Albans, ME 04971	TEL: 487-5141 x269
First Responder Service	Richard Doughty, EMT-P	4153 Union Street, Levant, ME 04456	TEL: 941-5900
Emergency Medical Dispatch	James E. Ryan, Jr.	62 Main Trail, Hampden, ME 04444	TEL: 570-3773
For Profit Service	Joseph Conley, EMT-P	11 Deer Hill Avenue, Standish, ME 04084	TEL: 252-3947
Not For Profit Service	Bob Hand, EMT-P	100 Hill Street, So. Paris, ME 04281	TEL: 890-6350
State Medical Control Director	Steven E. Diaz, MD	Maine EMS, 152 State House Station, Augusta, ME 04333	
Hospital Rep	Judy Gerrish, RN	891 West Main Street, Suite 400, Dover-Foxcroft, ME 04426	
Municipal EMS Service Rep	Wayne Werts, EMT-P, Chief	Auburn Fire Department, 550 Minot Avenue, Auburn, ME 04210	TEL: 783-6931
Fire Chief Rep	Roy Woods, Chief	Caribou Fire Department	
Public Rep	VACANT		
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